

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Richland 2800 George Washington Way Richland, WA 99352 Tel: (509)375-3131

TestAmerica Job ID: 300-4398-1

TestAmerica Sample Delivery Group: WC1639

Client Project/Site: F16-020

For:

CH2M Hill Plateau Remediation Company PO BOX 1600 Mail Stop R3-50 Richland, Washington 99352

Attn: CPP Sample Management

Stre appro

Authorized for release by: 12/21/2016 9:57:54 AM Steven Campbell, Project Mgmt. Assistant steven.campbell@testamericainc.com

Designee for

Whitney Ritari, Project Manager I (509)375-3131 ext164 whitney.ritari@testamericainc.com

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this package. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a desingee as verified by the attached signature.

The laboratory is accredited to EPA 7196A in Solid and Chemical Materials, per Washington State Department of Ecology this is approved for non-discharge water samples. The sample/sample duplicate RPD agreement is not applicable if one or both results are less than five times the MDL.

January 4, 2017

Client: CH2M Hill Plateau Remediation Company Project/Site: F16-020

TestAmerica Job ID: 300-4398-1 SDG: WC1639

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2

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46

11

12

13



Project/Site: F16-020

Minimum Level (Dioxin)

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Not detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

Not Calculated

Quality Control

Relative error ratio

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Analyzed for but not detected.
В	Estimated result. Result is less than the RL, but greater than MDL

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.
D	The reported value is from a dilution.

Glossary

ML NC

ND

PQL

QC

RER

RL RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit

TestAmerica Richland



Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Job ID: 300-4398-1

Laboratory: TestAmerica Richland

Narrative

Job Narrative 300-4398-1

Comments

This job is associated to SDG W07689 for rad analysis.

The samples were received on 11/7/2016 3:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2° C.

HPLC/IC

Method 300.0: Manual integration was performed on the following samples for Fluoride: B37PV2 (300-4398-2), B37PV0 (300-4398-4), B37PT4 (300-4398-5), B37PT0 (300-4398-6) and B37PT2 (300-4398-7).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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CH2MHill Plateau Remediation Company	CHAIN OF CU	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQU	UEST	F16-020-1435 P	PAGE 1 OF 1
COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	ļ	DATA
T. Laird	TODAK, D	376-6427	TODAK, D	PRICE CODE 811	TURNAROUND
SAMPLING LOCATION	PROJECT DESIGNATION		SAF NO.	AIR QUALITY	30 Days / 30
C9489, Core 22, B353K4	200-DV-1 Operable Unit Characterization of Waste Sites Phase 3 Sampling	of Waste Sites Phase 3 Sampling	F16-020		Cajo
ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT	
NA	AN	125.0-126.6 ft	302632	COMPANY TENTICLE	ORIGINAL
SHIPPED TO	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.		
TestAmerica Incorporated, Richland	NA		NA		

5 of 262 1/2016

SPEHE

T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

7196_CR6; COMMON;

SEE ITEM (1)
IN SPECIAL
INSTRUCTIONS

TL 117/16
SEE ITEM (2)
IN SPECIAL
INSTRUCTIONS

VOLUME

60mL

500mL

₹

Solids L=Liquid O=Oil

DOE Order 458.1.

S=Soil

SE=Sediment

NO. OF CONTAINER(S)

TYPE OF CONTAINER

HOLDING TIME

30 Days G/P

6 Months

28 Days/48 Hours G/P

Q/P

PRESERVATION

Cool <=6C

None

Cool <=6C

A=Air DL=Drum

MATRIX*

POSSIBLE SAMPLE HAZARDS/ REMARKS

Liquids DS=Drum

transportation per 49 CFR/IATA Dangerous concentrations that are not be regulated for *Contains Radioactive Material at

Goods Regulations but are not releasable per

WC1639

300-4398 COC

CHAIN OF POSSESSION RELINQUISHED BY/REMOVED FROM 200 11/1/16 1530 DATE/TIME DATE/TIME DATE/TIME DATE/TIME DATE/TIME DATE/TIME DATE/TIME RECEIVED BY/STORED IN SIGN/ PRINT NAMES RECEIVED BY/STORED IN 1550 DATE/TIME DATE/TIME DATE/TIME DATE/TIME DATE/TIME DATE/TIME DATE/TIME TRVL-17-008

SPECIAL INSTRUCTIONS

anuary

B37PT6

SOIL

SAMPLE NO

MATRIX*

SAMPLE DATE

SAMPLE TIME She

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I129_SEP_LEPS_GS: COMMON; NI63_LSC: COMMON; NP237_IE_PRECIP_AEA: COMMON {Neptunium-237}; on) {Phosphorus in phosphate}; SRTOT_SEP_PRECIP_GPC: COMMON {Total beta radiostrontium}; (2) 300.0_ANIONS_IC: COMMON; TC99_ETVDSK_LSC: COMMON; TRITIUM_DIST_LSC: COMMON; Uranium-235, Uranium-238); C14_LSC: COMMON; Plutonium-239/240}; UISO_PLATE_AEA: COMMON {Uranium-233/234, (1) GAMMA_GS: COMMON; AMCMISO_IE_PRECIP_AEA: COMMON {Americium-241}; PUISO_IE_PRECIP_AEA: COMMON {Plutonium-238, 300.0_ANIONS_IC: COMMON (Add-

TRVL NUM = TRVL-17-008

DISPOSED BY

TITLE

 $FSR_{ID} = FSR_{38428}$

PRINTED ON 10/20/2016

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

LABORATORY SECTION

RECEIVED BY

A-6003-618 (REV 2)

DATE/TIME

DATE/TIME

TRVL NUM = TRVL-17-008

A-6003-618 (REV 2)

6 of 26 1/2016

			IME	DATE/TIME		ORED IN	RECEIVED BY/STORED IN	DAIE/IIME	OVED FROM	:D BY/REMC	KELINQUISHED BY/KEMOVED FROM
				7.41		TOPED TH	פברבוויבה פעור	DATE /TIME	WED EBON	D BY (DEM)	DELINOUTCUE
	ite};	 Phosphorus in phosphate}; 	IME on)	DATE/TIME		TORED IN	RECEIVED BY/STORED IN	DATE/TIME	OVED FROM	ED BY/REMO	RELINQUISHED BY/REMOVED FROM
300.0_ANIONS_IC: COMMON (Add-	MON; 300.0_ANIONS_I	(.)		DATE/TIME		TORED IN	RECEIVED BY/STORED IN	DATE/TIME	OVED FROM	D BY/REMO	RELINQUISHED BY/REMOVED FROM
iostrontium};	NIMON (Neptunium-23)	NP23/_IE_PRECIP_APA: COMMON {Neptunium-23/}; SRTOT_SEP_PRECIP_GPC: COMMON {Total beta radiostrontium}; TCOO ETYTOSK SC: COMMON: TBTTI IM DIST SC: COMMON:		DATE/TIME		TORED IN	RECEIVED BY/STORED IN	DATE/TIME	OVED FROM	D BY/REMO	RELINQUISHED BY/REMOVED FROM
· X;	S_GS: COMMON; NI63_LSC: COMMON; NI63_LSC: COMMON; NI63_LSC: COMMON	Udiliuli-233, Udiliuli-238; CL4_ESC: COMMON, 1163_LSC: COMMON, 1163_LSC: COMMON, NIGHT COMMON (NIGHT COMMON)		DATE/TIME		TORED IN	RECEIVED BY/STORED IN	DATE/TIME	OVED FROM	D BY/REMO	RELINQUISHED BY/REMOVED FROM
N {Plutonium-238, Uranium-233/234,	E_PRECIP_AEA: COMMON_ PLATE_AEA: COMMON_	(1) GATHINA, GOTTON, ANTICHISO_ILE_FACTA, COMMON. {Americium-241}; PUISO_IE_PRECIP_AEA: COMMON. {Plutonium-238, Plutonium-239/240}; UISO_PLATE_AEA: COMMON. {Uranium-233/234, Plutonium-236, C14_LCC. COMMON.		DATE/TIME	JARLY 114	4	RECEIVED BY/STORED IN	783 11 <i>1</i> 1/16 1550 DATE/TIME		BBY/REMO	RELINQUISHED BY/REMOVED FROM
VEV. COMMON	AMCMISO IE DRECID A	TRVL-17-008					RECEIVED BY/STORED IN	DATE/T	ł	B BY/REMO	RELINQUISHED BY/REMOVED FROM
		SPECIAL INSTRUCTIONS	SPE			NAMES	SIGN/ PRINT NAMES		ž	OSSESSIO	CHAIN OF POSSESSION
	,										January
			×	×	×	1450	41/1/10		SOIL		B37PV2
		5001001				SAMPLE TIME	SAMPLE DATE	MATRIX*		SAMPLE NO.	, SAMI
		S.		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	7196_CR6: COMMON;	NALYSIS	SAMPLE ANALYSIS	SPECIAL HANDLING AND/OR STORAGE NA	HANDLING AN	SPECIAL	ZUI K=Other
		JR III TILLE	るまし	500mL	60mL	UME	VOLUME				V=Vegetation W=Water
		<u>.</u>	12	<u>ь</u>	<u>,</u>	TAINER(S)	NO. OF CONTAINER(S)				S=Soil SE=Sediment
			G/P	G/P	G/P	INTAINER	TYPE OF CONTAINER	Goods Regulations but are not releasable per DOE Order 458.1.	Regulations but are der 458.1.	Goods R DOE Orc	Solids L=Liquid O=Oil
		<u> </u>	28 Days/48 Hours	6 Months	30 Days	G TIME	HOLDING TIME	concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous	rations that are no tation per 49 CFR	concent	DL≃Drum Liquids DS=Drum
			Cool <=6C	None	Coo! <=6C	VATION	PRESERVATION	POSSIBLE SAMPLE HAZARDS/ REMARKS *Contains Parlicactive Material at	OSSIBLE SAMPLE HAZARDS/	POSSIBI	MATRIX* A=Air
		NA					NA		Incorporated, Richland	w	TestAmerica
	O COMPANY	BILL OF LADING/AIR BILL NO.				RTY NO.	OFFSTTF PROPERTY NO.				SHIPPED TO
ORIGINAL	-COVERNMENT VEHICLE	302632	# #	# 056-bee	25	Š	NA			Ŝ	NA NA
	METHOD OF CUITAMENT		e Deptu	te sites i ilast	Zanon or wast	ye offic characters	COO DA T Obeign			יונינים ליבי	יייייייייייייייייייייייייייייייייייייי
30 Days / 30 Days	AIR QUALITY	SAF NO. F16-020	s 3 Sampling	'e Sifes Phase	zation of Wast	PROJECT DESIGNATION 200-DV-1 Operable Unit Characterization of Waste Sites Phase 3 Sampling	PROJECT DESIGNATION 200-DV-1 Operable Unit Ct		. -	LOCATION	SAMPLING LOCATION
DATA TURNAROUND	PRICE CODE 8H	TODAK, D		376-6427	376	IACI	TODAK, D	-	B	では、	COLLECTOR
PAGE 1 OF 1	F10-020-1441	Quest	CHAIN OF COSTODY/SAMPLE ANALTSIS REQUEST	/SAMPLE A	Jr Coslopt			on company	CH2MHill Plateau Remediation Company	ZMHIII Plat	H.
2	E16_000_1//1		NAI VCTC DE	YCAMBI E A	SE CHETONY	CHAIN				Num plat	Ę

CH2MHill Plateau Remediation Company	CHAIN OF CUS	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	QUEST
CTOR	COMPANY CONTACT	TELEPHONE NO.	PROJ
tom Laird	TODAK, D	376-6427	TOD/
ING LOCATION	PROJECT DESIGNATION		SAF N
Core 30, B353M0	200-DV-1 Operable Unit Characterization of Waste Sites Phase 3 Sampling	of Waste Sites Phase 3 Sampling	F16-0
EST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA
	NA	163.0-164.0 A	3026
ED TO	OFFSITE PROPERTY NO.		BILL

SAF NO.

TODAK, D

F16-020

PROJECT COORDINATOR

PRICE CODE

8H

DATA TURNAROUND

F16-020-1437

PAGE

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AIR QUALITY

METHOD OF SHIPMENT COVERNMENT VEHICLE

302632

BILL OF LADING/AIR BILL NO. COMPANY

41][7]11 ST

ICE CHE

SAMPLI C9489, 1

COLLEC

SHIPPE

TestAmerica Incorporated, Richland

K

anuary	B3;	٠,	20 ⁻	17 X=Other	V=V	S=S	Solids L=Liquid O=Oil	Liquids DS=Dru	MATR A=Air
	B37PT8	SAMP		ther	V=Vegetation W=Water	S=Soil SE=Sediment	is quid	Liquids DS=Drum	MATRIX* A=Air
,		SAMPLE NO.		SPECIAL HA			Goods Regulations DOE Order 458.1.	concentration transportation	*Contains Ra
	SOIL	MATRIX*		SPECIAL HANDLING AND/OR STORAGE NA			Goods Regulations but are not releasable per DOE Order 458.1.	concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous	POSSIBLE SAMPLE HAZARDS/ REMARKS *Contains Radioactive Material at
	21/7/16	SAMPLE DATE		SAMPLE ANALYSIS	VOLUME	NO. OF CONTAINER(S)	TYPE OF CONTAINER	HOLDING TIME	PRESERVATION
ĺ	12/2	SAMPLE TIME		NALYSIS	OME	TAINER(S)	ONTAINER	G TIME	VATION
	×			7196_CR6: COMMON;	60mL	ш	G/P	30 Days	Cool <=6C
-	×			SEE ITEM (1) IN SPECIAL INSTRUCTIONS	500mL	H	G/P	6 Months	None
	×			-	60 m²	11/2/11 of	G/P	.28 Days/48 Hours	Cool <=6C

4398 WC1439

ши					RY RECEIVED BY	LABORATORY	
	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		RELINQUISHED BY/REMOVED FROM	RELINQUISHE	
on)	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		RELINQUISHED BY/REMOVED FROM	RELINQUISHE	
7 (2)	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		RELINQUISHED BY/REMOVED FROM	RELINQUISHE	
NP2 SRT	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		RELINQUISHED BY/REMOVED FROM	RELINQUISHE	,
Urar I129	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		RELINQUISHED BY/REMOVED FROM	RELINQUISHE	
Plut	DATE/TIME	BY	DATE/TIME		RELINQUISHED BY/REMOVED FROM	RELINQUISHE	
Œ	J. Bock, TARL 11-11-16 1855	RECEIVED BY/STORED IN J. Bock, TARL	DATE/TIME ISSO	PES	RELINQUISHED BY/REMOVED FROM Tom Laird Tom/ Jain	Tom La	
SPEC		SIGN/ PRINT NAMES			OSSESSION	CHAIN OF POSSESSION	

SPECIAL INSTRUCTIONS VL-17-008

anium-235, Uranium-238}; C14_LSC: COMMON; tonium-239/240}; UISO_PLATE_AEA: COMMON {Uranium-233/234,

'99_ETVDSK_LSC: COMMON; TRITIUM_DIST_LSC: COMMON; TOT_SEP_PRECIP_GPC: COMMON {Total beta radiostrontium} 300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: COMMON (Add-

{Phosphorus in phosphate};

DATE/TIME DATE/TIME

DISPOSED BY

PRINTED ON 10/20/2016

FSR ID = FSR38429

TRVL NUM = TRVL-17-008

A-6003-618 (REV 2)

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

SECTION

of **26**21/2016

30 Days / 30 Days

ORIGINAL

of 2621/2016

TestAmerica Incorporated, Richland

UB 37PV0	SAMPLE NO.		X=Other SPECIAL	V=Vegetation W=Water	S=Soil SE=Sediment T=Tissue	ă.	a a	MATRIX* POSSIBLE A=Air A=Air *Contains
SOIL	MATRIX*		SPECIAL HANDLING AND/OR STORAGE			Goods Regulations but are not releasable per DOE Order 458.1.	concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous	*Contains Radioactive Material at
u/7/16	SAMPLE DATE	!	SAMPLE ANALYSIS	VOLUME	NO. OF CONTAINER(S)	TYPE OF CONTAINER	HOLDING TIME	PRESERVATION
2541	SAMPLE TIME		NALYSIS	UME	TAINER(S)	ONTAINER	G TIME	VATION
X		COMPONE	7196_CR6:	60mL	±	G/P	30 Days	Cool <=6C
\times		S	SEE ITEM (1)	500mL	ь.	G/P	6 Months	None
×		INSTRUCTIONS	SEE ITEM (2)	60mL	ין אבינ <i>ון זוו</i> י	G/P	28 Days/48 Hours	Cool <=6C
		. (139 X	•			

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FINAL SAMPLE DISPOSITION	LABORATORY SECTION	RELINQUISHED BY/REMOVED FROM	RELINQUISHED BY/REMOVED FROM	RELINQUISHED BY/REMOVED FROM	RELINQUISHED BY/REMOVED FROM	RELINQUISHED BY/REMOVED FROM	RELINQUISHED BY/REMOVED FROM	Tom Laind Tom Jami	RELINQUISHED BY/REMOVED FROM	CHAIN OF POSSESSION	January
DISPOSAL METHOD	RECEIVED BY	10VED FROM	10VED FROM	NOVED FROM	MOVED FROM	40VED FROM	NOVED FROM	Non PES	10VED FROM	ÖN	
		DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	11/1/16 1550	DATE/TIME		
		RECEIVED BY/STORED IN	RECEIVED BY/STORED IN	RECEIVED BY/STORED IN	RECEIVED BY/STORED IN	RECEIVED BY/STORED IN	RECEIVED BY/STORED IN	3. Bock, TARL INALY ISS	RECEIVED BY/STORED IN	SIGN/ PRINT NAMES	
		DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	1550 1714	DATE/TIME		
DISPOSED BY	TITLE		on) {Phosphorus in phosphate};	(2) 300.0_ANIONS_IC: COMMON; RITIUM_DIST_LSC: COMMON; Add-	NP23/_IE_PRECIP_AEA: COMMON {Neptunium-23/}; SRTOT_SEP_PRECIP_GPC: COMMON {Total beta radiostrontium};	Udaliulir-z35, Udaliulir-z36}, C14 LSC; COMMON; I129 SEP LEPS GS; COMMON; I139 SEP LEPS GS; COMMON; I130 SEP LEPS GS; COMM	Plutonium-239/240}; UISO_PLATE_AEA: COMMON {Uranium-233/234	(1) GAMMA_GS: COMMON; AMCMISO_IE_PRECIP_AEA: COMMON	TRVL-17-008	SPECIAL INSTRUCTIONS	
DATE/TIME	DATE/TIME			300.0_ANIONS_IC: COMMON (Add-	{Total beta radiostrontium};	LSC: COMMON;	AEA: COMMON {Uranium-233/234,	SO_1E_PRECIP_AEA: COMMON			

TRVL NUM = TRVL-17-008

PRINTED ON 10/20/2016

FSR ID = FSR38430

A-6003-618 (REV 2)

FSR ID = FSR38427

TRVL NUM = TRVL-17-008

A-6003-618 (REV 2)

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

LABORATORY SECTION

RECEIVED BY

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

TRVL NUM = TRVL-17-008

DISPOSED BY

DATE/TIME

A-6003-618 (REV 2)

DATE/TIME

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PECIAL INSTRUCTIONS TRVL-17-008 (1) GAMMA_GS: COMMON; AMCMISO_IE_PRECIP_AEA: COMMON (1) GAMMA_GS: COMMON; AMCMISO_IE_PRECIP_AEA: COMMON {Plutonium-238, Plutonium-239/240}; UISO_PLATE_AEA: COMMON {Uranium-233/234, Uranium-235, Uranium-238}; C14_LSC: COMMON; Uranium-233/234, Uranium-235, Uranium-238); C14_LSC: COMMON; SRTOT_SEP_LEPS_GS: COMMON; NI63_LSC: COMMON; NP237_IE_PRECIP_GPC: COMMON {Total beta radiostrontium}; SRTOT_SEP_PRECIP_GPC: COMMON {TOtal beta radiostrontium}; TC99_ETVDSK_LSC: COMMON; TRITIUM_DIST_LSC: COMMON; Add-O), ANIONS_IC: COMMON (Add-O), 300.0_ANIONS_IC: COMMON (Add-O)	SPECIAL INSTRUCTIONS TRVL-17-008 (1) GAMMA_GS: COMMON; AMCMISO_IE_PRECIP_AE Americium-241}; PUISO_IE_PRECIP_AEA: COMMON Plutonium-239/240}; UISO_PLATE_AEA: COMMON Plutonium-235, Uranium-238}; C14_LSC: COMMON; I129_SEP_LEPS_GS: COMMON; NI63_LSC: COMMON; NP237_IE_PRECIP_AEA: COMMON {Neptunium-237}; SRTOT_SEP_PRECIP_GPC: COMMON {Total beta radio TC99_ETVDSK_LSC: COMMON; TRITIUM_DIST_LSC: (2) 300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC:	TIME TIME	D D D D	TARL (1.7.)	RECEIVED BY/STORED IN	PBS 11/2/16 1550 REDATE/TIME R	RELINQUISHED BY/REMOVED FROM	RELINQUISHED B RELINQUISHED B RELINQUISHED B RELINQUISHED B
AMCMISO_IE_PRECIP_AEA: COMMON PRECIP_AEA: COMMON {Plutonium-238 PLATE_AEA: COMMON {Uranium-233/234 C14_LSC: COMMON; I, NI63_LSC: COMMON; MON {Neptunium-237}; MMON {Neptunium-237};	ECIAL INSTRUCTIONS RVL-17-008 RVL-17-008 Americium-241}; PUISO_IE_ lutonium-239/240}; UISO_F ranium-235, Uranium-238}; ranium-235, Uranium-238}; ranium-235, Uranium-238;	ω Χ		= = = = = = = = = = = = = = = = = = = =		DATE/TIME DATE/TIME DATE/TIME DATE/TIME		RELINQUISHED B RELINQUISHED B RELINQUISHED B
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AMCMISO_IE_PRECIP_AEA: COMMON PRECIP_AEA: COMMON {Plutonium-238 PLATE_AEA: COMMON {Uranium-233/23	ECIAL INSTRUCTIONS RVL-17-008 Americium-241}; PUISO_IE Jutonium-239/240}; UISO_F	<u>σ</u> Χ		5	<i>*</i>	DATE/TIME		RELINQUISHED B
	VI -17-00		de			T.		RELINQUISHED B
		×			SIGN/ PRINT NAMES	S	SESSION	CHAIN OF POSSESSION
		X						January
			×	×	17/16 1115		SOIL	B37PT0
					SAMPLE DATE SAMPLE TIME	MATRIX* SAN	NO.	, SAMPLE NO.
₽°			SEE ITEM (1) IN SPECIAL INSTRUCTIONS	7196_CR6: COMMON;	SAMPLE ANALYSIS	UND/OR STORAGE	SPECIAL HANDLING AND/OR STORAGE NA	WI=Wipe S
			500mL	60mL	VOLUME			V=Vegetation W=Water
	The state of the s	£ .	<u> </u>	<u>н</u>	NO. OF CONTAINER(S)			S=Soil SE=Sediment T=Tissue
	,	G/P	G/P	G/P	TYPE OF CONTAINER	are not releasable per	Goods Regulations but are not releasable per DOE Order 458.1.	Solids L=Liquid O=Oil
		28 Days/48 Hours	6 Months	30 Days	HOLDING TIME	not be regulated for FR/IATA Dangerous	concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous	# E
		Cool <=6C	None	Cool <=6C	PRESERVATION	VZARDS/ REMARKS **Jaterial at	POSSIBLE SAMPLE HAZARDS/ REMARKS *Contains Radioactive Material at	
a 4	NA					NA NA	TestAmerica Incorporated, Richland	TestAmerica I
. COMPANY JO 11/7/16	BILL OF LADING/AIR BILL NO.				OFFSITE PROPERTY NO.	OFF		SHIPPED TO
COVERNMENT VEHICLE ORIGINAL	302632	40.18	79.0-81.0		NA	>		NA
METHOD OF SHIPMENT	COA	ACTUAL SAMPLE DEPTH	TUAL SAM	AC	FIELD LOGBOOK NO.	· FIE		ICE CHEST NO.
AIR QUALITY 30 Days / 30 Days	SAF NO. F16-020	iase 3 Sampling	ste Sites Ph	ization of Was	PROJECT DESIGNATION 200-DV-1 Operable Unit Characterization of Waste Sites Phase 3 Sampling	200	EXATION . B353H6	SAMPLING LOCATION C9489, Core 13, B353H6
] [TODAK, D		376-6427	μ	TODAK, D	TO	Laird	7.7
PRICE CODE 8H DATA	PROJECT COORDINATOR	NO.	TELEPHONE NO.	TEI.	COMPANY CONTACT	CON		COLLECTOR
F16-020-1429 PAGE 1 OF 1	QUEST	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	Y/SAMPLE	OF CUSTOD	CHAIN	tion Company	CH2MHill Plateau Remediation Company	CH2MI

FSR ID = FSR38426

TRVL NUM = TRVL-17-008

A-6003-618 (REV 2)

Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Client Sample ID: B37PT6	Lab Sample ID: 300-4398-1
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Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Chloride	12	2.0	0.99	mg/Kg		300.0	Soluble
Nitrate as N	25	0.28	0.14	mg/Kg	1	300.0	Soluble
Fluoride	0.32 B	0.50	0.25	mg/Kg	1	300.0	Soluble
Sulfate	4.6	2.5	1.2	mg/Kg	1	300.0	Soluble

Client Sample ID: B37PV2 Lab Sample ID: 300-4398-2

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6	2.0	0.99	mg/Kg	1	_	300.0	Soluble
Nitrate as N	25	0.28	0.14	mg/Kg	1		300.0	Soluble
Fluoride	0.33 B	0.50	0.25	mg/Kg	1		300.0	Soluble
Sulfate	10	2.5	1.2	mg/Kg	1		300.0	Soluble

Client Sample ID: B37PT8 Lab Sample ID: 300-4398-3

Analyte		Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride		3.3		2.0	0.99	mg/Kg	1	_	300.0	Soluble
Nitrate a	s N	26		0.28	0.14	mg/Kg	1		300.0	Soluble
Fluoride		0.30	В	0.50	0.25	mg/Kg	1		300.0	Soluble
Sulfate		5.5		2.5	1.2	mg/Kg	1		300.0	Soluble

Client Sample ID: B37PV0 Lab Sample ID: 300-4398-4

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2	2.0	1.0	mg/Kg	1	_	300.0	Soluble
Nitrate as N	36	0.28	0.14	mg/Kg	1		300.0	Soluble
Fluoride	0.31 B	0.50	0.25	mg/Kg	1		300.0	Soluble
Sulfate	7.4	2.5	1.2	mg/Kg	1		300.0	Soluble

Client Sample ID: B37PT4 Lab Sample ID: 300-4398-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D M	ethod	Prep Type
Chloride	3.2		2.0	0.99	mg/Kg	1	3	0.00	Soluble
Nitrate as N	30		0.28	0.14	mg/Kg	1	3	0.00	Soluble
Fluoride	0.37	В	0.49	0.25	mg/Kg	1	3	0.00	Soluble
Sulfate	20		2.5	1.2	mg/Kg	1	3	0.00	Soluble

Client Sample ID: B37PT0 Lab Sample ID: 300-4398-6

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5	2.0	0.99	mg/Kg	1	_	300.0	Soluble
Nitrate as N	41	0.28	0.14	mg/Kg	1		300.0	Soluble
Fluoride	0.40 B	0.50	0.25	mg/Kg	1		300.0	Soluble
Sulfate	5.6	2.5	1.2	mg/Kg	1		300.0	Soluble

Client Sample ID: B37PT2 Lab Sample ID: 300-4398-7

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Chloride	3.6	2.0	0.99 mg/Kg		300.0	Soluble
Nitrate as N	41	0.28	0.14 mg/Kg	1	300.0	Soluble

This Detection Summary does not include radiochemical test results.

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Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

Lab Sample ID: 300-4398-7

SDG: WC1639

Client Sample ID: B37PT2 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.40	В	0.50	0.25	mg/Kg	1		300.0	Soluble
Sulfate	5.8		2.5	1.2	mg/Kg	1		300.0	Soluble

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1:

Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Client Sample ID: B37PT6 Lab Sample ID: 300-4398-1 Date Collected: 11/07/16 12:45

Matrix: Soil

Date Received: 11/07/16 15:50

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		2.0	0.99	mg/Kg			11/08/16 15:43	1
Nitrate as N	25		0.28	0.14	mg/Kg			11/08/16 15:43	1
Fluoride	0.32	В	0.50	0.25	mg/Kg			11/08/16 15:43	1
Nitrite as N	0.19	U	0.38	0.19	mg/Kg			11/08/16 15:43	1
Orthophosphate as P	0.41	U	0.81	0.41	mg/Kg			11/08/16 15:43	1
Sulfate	4.6		2.5	1.2	mg/Kg			11/08/16 15:43	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.15	U	2.0	0.15	mg/Kg		12/07/16 11:17	12/08/16 11:13	1

Client Sample ID: B37PV2 Lab Sample ID: 300-4398-2

Date Collected: 11/07/16 14:50 Matrix: Soil

Date Received: 11/07/16 15:50

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		2.0	0.99	mg/Kg			11/08/16 16:28	1
Nitrate as N	25		0.28	0.14	mg/Kg			11/08/16 16:28	1
Fluoride	0.33	В	0.50	0.25	mg/Kg			11/08/16 16:28	1
Nitrite as N	0.19	U	0.38	0.19	mg/Kg			11/08/16 16:28	1
Orthophosphate as P	0.41	U	0.81	0.41	mg/Kg			11/08/16 16:28	1
Sulfate	10		2.5	1.2	mg/Kg			11/08/16 16:28	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.15	U	2.0	0.15	mg/Kg		12/07/16 11:17	12/08/16 12:11	

Client Sample ID: B37PT8 Lab Sample ID: 300-4398-3

Date Collected: 11/07/16 13:13 Matrix: Soil

Date Received: 11/07/16 15:50

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.99	mg/Kg			11/08/16 16:43	1
Nitrate as N	26		0.28	0.14	mg/Kg			11/08/16 16:43	1
Fluoride	0.30	В	0.50	0.25	mg/Kg			11/08/16 16:43	1
Nitrite as N	0.19	U	0.38	0.19	mg/Kg			11/08/16 16:43	1
Orthophosphate as P	0.41	U	0.81	0.41	mg/Kg			11/08/16 16:43	1
Sulfate	5.5		2.5	1.2	mg/Kg			11/08/16 16:43	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.15	U	2.0	0.15	mg/Kg		12/07/16 11:17	12/08/16 12:26	1

Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Client Sample ID: B37PV0

Date Collected: 11/07/16 14:20 Date Received: 11/07/16 15:50

Lab Sample ID: 300-4398-4

Matrix: Soil

Method: 300.0 - Anions, Ion Ch	romatography -	Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		2.0	1.0	mg/Kg			11/08/16 16:58	1
Nitrate as N	36		0.28	0.14	mg/Kg			11/08/16 16:58	1
Fluoride	0.31	В	0.50	0.25	mg/Kg			11/08/16 16:58	1
Nitrite as N	0.19	U	0.38	0.19	mg/Kg			11/08/16 16:58	1
Orthophosphate as P	0.41	U	0.81	0.41	mg/Kg			11/08/16 16:58	1
Sulfate	7.4		2.5	1.2	mg/Kg			11/08/16 16:58	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.15	U	2.0	0.15	mg/Kg		12/07/16 11:17	12/08/16 12:41	1

Client Sample ID: B37PT4 Lab Sample ID: 300-4398-5

Date Collected: 11/07/16 11:50 **Matrix: Soil** Date Received: 11/07/16 15:50

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	0.99	mg/Kg			11/08/16 17:13	1
Nitrate as N	30		0.28	0.14	mg/Kg			11/08/16 17:13	1
Fluoride	0.37	В	0.49	0.25	mg/Kg			11/08/16 17:13	1
Nitrite as N	0.19	U	0.38	0.19	mg/Kg			11/08/16 17:13	1
Orthophosphate as P	0.40	U	0.80	0.40	mg/Kg			11/08/16 17:13	1
Sulfate	20		2.5	1.2	mg/Kg			11/08/16 17:13	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.15	U	2.0	0.15	mg/Kg		12/07/16 11:17	12/08/16 12:55	1

Client Sample ID: B37PT0 Lab Sample ID: 300-4398-6 **Matrix: Soil**

Date Collected: 11/07/16 11:15 Date Received: 11/07/16 15:50

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 2.0 0.99 mg/Kg 11/08/16 17:28 Chloride 3.5 0.14 mg/Kg Nitrate as N 41 0.28 11/08/16 17:28 0.50 0.25 mg/Kg 11/08/16 17:28 **Fluoride** 0.40 B 0.19 U 0.38 Nitrite as N 0.19 mg/Kg 11/08/16 17:28 Orthophosphate as P 0.41 U 0.81 0.41 mg/Kg 11/08/16 17:28 11/08/16 17:28 Sulfate 5.6 2.5 1.2 mg/Kg

General Chemistry							
Analyte	Result Qua	alifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.15 U	2.0	0.15 mg/Kg		12/07/16 11:17	12/08/16 13:39	1



Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Client Sample ID: B37PT2

Lab Sample ID: 300-4398-7

Matrix: Soil

Date Collected: 11/07/16 11:15 Date Received: 11/07/16 15:50

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		2.0	0.99	mg/Kg			11/08/16 18:13	1
Nitrate as N	41		0.28	0.14	mg/Kg			11/08/16 18:13	1
Fluoride	0.40	В	0.50	0.25	mg/Kg			11/08/16 18:13	1
Nitrite as N	0.19	U	0.38	0.19	mg/Kg			11/08/16 18:13	1
Orthophosphate as P	0.41	U	0.81	0.41	mg/Kg			11/08/16 18:13	1
Sulfate	5.8		2.5	1.2	mg/Kg			11/08/16 18:13	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.15	U	2.0	0.15	mg/Kg		12/07/16 11:17	12/08/16 13:54	1

Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-6327/1-A

Matrix: Solid

Analysis Batch: 6322

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: B37PT6

Prep Type: Soluble

мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.14	U	0.28	0.14	mg/Kg			11/08/16 15:13	1
Nitrite as N	0.19	U	0.38	0.19	mg/Kg			11/08/16 15:13	1
Orthophosphate as P	0.41	U	0.81	0.41	mg/Kg			11/08/16 15:13	1

Lab Sample ID: LCS 300-6327/2-A

Matrix: Solid

Analysis Batch: 6322

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	 22.5	22.4		mg/Kg		100	80 - 120	
Nitrite as N	30.4	30.3		mg/Kg		100	80 - 120	
Orthophosphate as P	65.1	63.5		mg/Kg		98	80 - 120	

Lab Sample ID: 300-4398-1 MS

Matrix: Soil

Analysis Batch: 6322 MS MS Sample Sample Spike %Rec.

Lab Sample ID: 300-4398-1 DU

Matrix: Soil

Analysis Batch: 6322

Analyte	Result Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Nitrate as N	25	22.4	45.8		mg/Kg		93	75 - 125
Nitrite as N	0.19 U	30.2	30.1		mg/Kg		100	75 _ 125
Orthophosphate as P	0.41 U	64.7	62.9		mg/Kg		97	75 - 125

Client Sample ID: B37PT6 **Prep Type: Soluble**

DU DU RPD Sample Sample Analyte Result Qualifier Result Qualifier Unit **RPD** Limit Nitrate as N 25 25.8 mg/Kg 3 20 Nitrite as N 0.19 U 0.19 U mg/Kg NC 20 Orthophosphate as P 0.41 U 0.41 U mg/Kg

Lab Sample ID: MB 300-6327/1-A

Matrix: Solid

Analysis Batch: 6323

Client Sample ID: Method Blank **Prep Type: Soluble**

-	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	2.0	1.0	mg/Kg			11/08/16 15:13	1
Fluoride	0.25	U	0.50	0.25	mg/Kg			11/08/16 15:13	1
Sulfate	1.2	U	2.5	1.2	mg/Kg			11/08/16 15:13	1

Lab Sample ID: LCS 300-6327/2-A

Matrix: Solid

Analysis Batch: 6323

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	160	156		mg/Kg		98	80 - 120	
Fluoride	39.9	39.3		mg/Kg		98	80 - 120	
Sulfate	199	196		mg/Kg		98	80 - 120	

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Prep Type: Soluble

Client Sample ID: Lab Control Sample

Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: B37PT6

Client Sample ID: B37PT6

Client Sample ID: B37PT6

Client Sample ID: Lab Control Sample

Prep Batch: 6694

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-4398-1 MS Client Sample ID: B37PT6 **Matrix: Soil Prep Type: Soluble**

Analysis Batch: 6323

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	12		159	168		mg/Kg		99	75 - 125	
Fluoride	0.32	В	39.7	39.1		mg/Kg		98	75 - 125	
Sulfate	4.6		198	199		mg/Kg		98	75 - 125	

Lab Sample ID: 300-4398-1 DU Client Sample ID: B37PT6

Matrix: Soil Prep Type: Soluble

Analysis Batch: 6323

Sample Sample DU DU RPD Result Qualifier Result Qualifier RPD Analyte Unit D Limit 12.5 Chloride 12 mg/Kg 20 Fluoride 0.32 B 0.318 B mg/Kg 0.7 20

Sulfate 4.6 4.48 mg/Kg 3 20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-6694/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 6774

мв мв

0.15 U

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Cr (VI) 0.15 U 2.0 0.15 mg/Kg 12/07/16 11:17 12/08/16 10:44

Lab Sample ID: LCS 300-6694/2-A **Matrix: Solid**

Analysis Batch: 6774

Prep Batch: 6694 Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits

Cr (VI) 20.0 19.51 98 85 - 115 mg/Kg

Lab Sample ID: 300-4398-1 MS

Matrix: Soil Prep Type: Total/NA **Analysis Batch: 6774** Prep Batch: 6694 Sample Sample Spike MS MS %Rec.

Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits Cr (VI) 0.15 U 29.7 27.98 75 - 125 mg/Kg

Lab Sample ID: 300-4398-1 MSI

Matrix: Soil

Prep Type: Total/NA **Analysis Batch: 6774** Prep Batch: 6694 Sample Sample Spike MSI MSI %Rec.

Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits 635 Cr (VI) 0.15 U 75 - 125 657.8 D mg/Kg 104

Lab Sample ID: 300-4398-1 DU

Matrix: Soil

Cr (VI)

Prep Type: Total/NA **Analysis Batch: 6774** Prep Batch: 6694 DU DU Sample Sample RPD Result Qualifier Result Qualifier RPD Limit Analyte Unit D

> 0.15 Ū

mg/Kg

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NC

35

Project/Site: F16-020

TestAmerica Job ID: 300-4398-1 SDG: WC1639

HPLC/IC

Analysis Batch: 6322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-4398-1	B37PT6	Soluble	Soil	300.0	6327
300-4398-2	B37PV2	Soluble	Soil	300.0	6327
300-4398-3	B37PT8	Soluble	Soil	300.0	6327
300-4398-4	B37PV0	Soluble	Soil	300.0	6327
300-4398-5	B37PT4	Soluble	Soil	300.0	6327
300-4398-6	B37PT0	Soluble	Soil	300.0	6327
300-4398-7	B37PT2	Soluble	Soil	300.0	6327
MB 300-6327/1-A	Method Blank	Soluble	Solid	300.0	6327
LCS 300-6327/2-A	Lab Control Sample	Soluble	Solid	300.0	6327
300-4398-1 MS	B37PT6	Soluble	Soil	300.0	6327
300-4398-1 DU	B37PT6	Soluble	Soil	300.0	6327

Analysis Batch: 6323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-4398-1	B37PT6	Soluble	Soil	300.0	6327
300-4398-2	B37PV2	Soluble	Soil	300.0	6327
300-4398-3	B37PT8	Soluble	Soil	300.0	6327
300-4398-4	B37PV0	Soluble	Soil	300.0	6327
300-4398-5	B37PT4	Soluble	Soil	300.0	6327
300-4398-6	B37PT0	Soluble	Soil	300.0	6327
300-4398-7	B37PT2	Soluble	Soil	300.0	6327
MB 300-6327/1-A	Method Blank	Soluble	Solid	300.0	6327
LCS 300-6327/2-A	Lab Control Sample	Soluble	Solid	300.0	6327
300-4398-1 MS	B37PT6	Soluble	Soil	300.0	6327
300-4398-1 DU	B37PT6	Soluble	Soil	300.0	6327

Leach Batch: 6327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-4398-1	B37PT6	Soluble	Soil	DI Leach	_
300-4398-2	B37PV2	Soluble	Soil	DI Leach	
300-4398-3	B37PT8	Soluble	Soil	DI Leach	
300-4398-4	B37PV0	Soluble	Soil	DI Leach	
300-4398-5	B37PT4	Soluble	Soil	DI Leach	
300-4398-6	B37PT0	Soluble	Soil	DI Leach	
300-4398-7	B37PT2	Soluble	Soil	DI Leach	
MB 300-6327/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 300-6327/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
300-4398-1 MS	B37PT6	Soluble	Soil	DI Leach	
300-4398-1 DU	B37PT6	Soluble	Soil	DI Leach	

General Chemistry

Prep Batch: 6694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-4398-1	B37PT6	Total/NA	Soil	3060A	
300-4398-2	B37PV2	Total/NA	Soil	3060A	
300-4398-3	B37PT8	Total/NA	Soil	3060A	
300-4398-4	B37PV0	Total/NA	Soil	3060A	
300-4398-5	B37PT4	Total/NA	Soil	3060A	
300-4398-6	B37PT0	Total/NA	Soil	3060A	

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Project/Site: F16-020

TestAmerica Job ID: 300-4398-1 SDG: WC1639

2

General Chemistry (Continued)

Prep Batch: 6694 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-4398-7	B37PT2	Total/NA	Soil	3060A	
MB 300-6694/1-A	Method Blank	Total/NA	Solid	3060A	
LCS 300-6694/2-A	Lab Control Sample	Total/NA	Solid	3060A	
300-4398-1 MS	B37PT6	Total/NA	Soil	3060A	
300-4398-1 MSI	B37PT6	Total/NA	Soil	3060A	
300-4398-1 DU	B37PT6	Total/NA	Soil	3060A	

Analysis Batch: 6774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-4398-1	B37PT6	Total/NA	Soil	7196A	6694
300-4398-2	B37PV2	Total/NA	Soil	7196A	6694
300-4398-3	B37PT8	Total/NA	Soil	7196A	6694
300-4398-4	B37PV0	Total/NA	Soil	7196A	6694
300-4398-5	B37PT4	Total/NA	Soil	7196A	6694
300-4398-6	B37PT0	Total/NA	Soil	7196A	6694
300-4398-7	B37PT2	Total/NA	Soil	7196A	6694
MB 300-6694/1-A	Method Blank	Total/NA	Solid	7196A	6694
LCS 300-6694/2-A	Lab Control Sample	Total/NA	Solid	7196A	6694
300-4398-1 MS	B37PT6	Total/NA	Soil	7196A	6694
300-4398-1 MSI	B37PT6	Total/NA	Soil	7196A	6694
300-4398-1 DU	B37PT6	Total/NA	Soil	7196A	6694

Project/Site: F16-020

Date Collected: 11/07/16 12:45

Date Received: 11/07/16 15:50

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Matrix: Soil

Matrix: Soil

Client Sample ID: B37PT6 Lab Sample ID: 300-4398-1

Matrix: Soil

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.0399 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6322	11/08/16 15:43	CPM	TAL RCH
Soluble	Leach	DI Leach			5.0399 g	50 mL	6327	11/08/16 11:21	CPM	TAL RCH
Soluble	Analysis	300.0		1			6323	11/08/16 15:43	CPM	TAL RCH
Total/NA	Prep	3060A			2.5117 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 11:13	HR	TAL RCH

Client Sample ID: B37PV2 Lab Sample ID: 300-4398-2

Date Collected: 11/07/16 14:50 Matrix: Soil

Date Received: 11/07/16 15:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.0451 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6322	11/08/16 16:28	CPM	TAL RCH
Soluble	Leach	DI Leach			5.0451 g	50 mL	6327	11/08/16 11:21	CPM	TAL RCH
Soluble	Analysis	300.0		1			6323	11/08/16 16:28	CPM	TAL RCH
Total/NA	Prep	3060A			2.5082 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 12:11	HR	TAL RCH

Client Sample ID: B37PT8 Lab Sample ID: 300-4398-3

Date Collected: 11/07/16 13:13 Date Received: 11/07/16 15:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.0277 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6322	11/08/16 16:43	CPM	TAL RCH
Soluble	Leach	DI Leach			5.0277 g	50 mL	6327	11/08/16 11:21	CPM	TAL RCH
Soluble	Analysis	300.0		1			6323	11/08/16 16:43	CPM	TAL RCH
Total/NA	Prep	3060A			2.5224 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 12:26	HR	TAL RCH

Client Sample ID: B37PV0 Lab Sample ID: 300-4398-4

Date Collected: 11/07/16 14:20 Date Received: 11/07/16 15:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.0207 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6322	11/08/16 16:58	CPM	TAL RCH
Soluble	Leach	DI Leach			5.0207 g	50 mL	6327	11/08/16 11:21	CPM	TAL RCH
Soluble	Analysis	300.0		1			6323	11/08/16 16:58	CPM	TAL RCH
Total/NA	Prep	3060A			2.5075 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 12:41	HR	TAL RCH

TestAmerica Richland

Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Client Sample ID: B37PT4

Date Collected: 11/07/16 11:50 Date Received: 11/07/16 15:50

Lab Sample ID: 300-4398-5

Matrix: Soil

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.0638 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6322	11/08/16 17:13	CPM	TAL RCH
Soluble	Leach	DI Leach			5.0638 g	50 mL	6327	11/08/16 11:21	CPM	TAL RCH
Soluble	Analysis	300.0		1			6323	11/08/16 17:13	CPM	TAL RCH
Total/NA	Prep	3060A			2.5032 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 12:55	HR	TAL RCH

Client Sample ID: B37PT0 Lab Sample ID: 300-4398-6

Date Collected: 11/07/16 11:15

Date Received: 11/07/16 15:50

Matrix: Soil

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_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.0256 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6322	11/08/16 17:28	CPM	TAL RCH
Soluble	Leach	DI Leach			5.0256 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6323	11/08/16 17:28	CPM	TAL RCH
Total/NA	Prep	3060A			2.5194 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 13:39	HR	TAL RCH

Client Sample ID: B37PT2 Lab Sample ID: 300-4398-7

Date Collected: 11/07/16 11:15

Date Received: 11/07/16 15:50

Matrix: Soil

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.0362 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6322	11/08/16 18:13	CPM	TAL RCH
Soluble	Leach	DI Leach			5.0362 g	50 mL	6327	11/08/16 11:21	CPM	TAL RCH
Soluble	Analysis	300.0		1			6323	11/08/16 18:13	CPM	TAL RCH
Total/NA	Prep	3060A			2.5131 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 13:54	HR	TAL RCH

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 300-6327/1-A

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.0116 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6322	11/08/16 15:13	CPM	TAL RCH
Soluble	Leach	DI Leach			5.0116 g	50 mL	6327	11/08/16 11:21	CPM	TAL RCH
Soluble	Analysis	300.0		1			6323	11/08/16 15:13	CPM	TAL RCH

Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Client Sample ID: Method Blank

Date Collected: N/A Date Received: N/A

Lab Sample ID: MB 300-6694/1-A

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3060A			2.5 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 10:44	HR	TAL RCH

Lab Sample ID: LCS 300-6327/2-A

Client Sample ID: Lab Control Sample

Date Collected: N/A Date Received: N/A

Matrix: Solid

Dil Initial Batch Batch Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Soluble Leach DI Leach 5.0137 g 50 mL 6327 11/08/16 11:21 CPM TAL RCH TAL RCH Soluble Analysis 300.0 6322 11/08/16 15:28 CPM Soluble DI Leach 5.0137 g 50 mL 6327 11/08/16 11:21 CPM TAL RCH Leach Analysis 300.0 11/08/16 15:28 TAL RCH Soluble 1 6323 CPM

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 300-6694/2-A

Date Collected: N/A

Date Received: N/A

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3060A			2.5 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 10:58	HR	TAL RCH

Client Sample ID: B37PT6 Lab Sample ID: 300-4398-1 MS

Date Collected: 11/07/16 12:45

Date Received: 11/07/16 15:50

Matrix: Soil

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.0416 g	50 mL	6327	11/08/16 11:21	СРМ	TAL RCH
Soluble	Analysis	300.0		1			6322	11/08/16 15:58	CPM	TAL RCH
Soluble	Leach	DI Leach			5.0416 g	50 mL	6327	11/08/16 11:21	CPM	TAL RCH
Soluble	Analysis	300.0		1			6323	11/08/16 15:58	CPM	TAL RCH
Total/NA	Prep	3060A			2.5239 g	100 mL	6694	12/07/16 11:17	HR	TAL RCH
Total/NA	Analysis	7196A		1			6774	12/08/16 11:27	HR	TAL RCH

Client Sample ID: B37PT6 Lab Sample ID: 300-4398-1 MSI

Date Collected: 11/07/16 12:45

Date Received: 11/07/16 15:50

Batch Dil Initial Final Batch Batch Prepared Method Prep Type Туре Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 3060A 6694 12/07/16 11:17 HR TAL RCH Total/NA 2.5069 g 100 mL Total/NA Analysis 7196A 20 6774 12/08/16 11:57 TAL RCH

Laboratory References:

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

Matrix: Soil



Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL RCH
7196A	Chromium, Hexavalent	SW846	TAL RCH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131



Project/Site: F16-020

TestAmerica Job ID: 300-4398-1

SDG: WC1639

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-4398-1	B37PT6	Soil	11/07/16 12:45	11/07/16 15:50
300-4398-2	B37PV2	Soil	11/07/16 14:50	11/07/16 15:50
300-4398-3	B37PT8	Soil	11/07/16 13:13	11/07/16 15:50
300-4398-4	B37PV0	Soil	11/07/16 14:20	11/07/16 15:50
300-4398-5	B37PT4	Soil	11/07/16 11:50	11/07/16 15:50
300-4398-6	B37PT0	Soil	11/07/16 11:15	11/07/16 15:50
300-4398-7	B37PT2	Soil	11/07/16 11:15	11/07/16 15:50

January 4, 2017

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-4398-1

SDG Number: WC1639

Login Number: 4398 List Source: TestAmerica Richland

List Number: 1 Creator: Bock, Julie A

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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